

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A semiconductor power module, comprising:

a lead frame having a first portion at a first level, a second portion connected to the first portion at a second level, and a plurality of terminals connected to the second portion;

a power circuit mounted on a first surface of the first portion;

~~a heat sink comprising at least one compound selected from the group consisting of AlN and BeO and having an electrically insulating property and thermal conductivity, wherein the heat sink directly contacts a second surface opposite the first surface of the first portion of the lead frame and wherein a surface of the heat sink is exposed to the outside of the semiconductor power module; and~~

a sealer having an electrically insulating property and thermal conductivity, wherein the sealer covers the power circuit.

Claim 2 (Original): The semiconductor power module of claim 1, wherein the first portion of the lead frame is centrally positioned within the lead frame.

Claim 3 (Original): The semiconductor power module of claim 1, wherein the power circuit includes a power semiconductor element.

Claim 4 (Original): The semiconductor power module of claim 1, wherein the first surface of the first portion is a top surface and wherein the second surface of the first portion is a bottom surface.

Claim 5 (Original): The semiconductor power module of claim 1, further comprising a control circuit that drives the power circuit.

Claim 6 (Original): The semiconductor power module of claim 1, further comprising a heat detection circuit that detects the heat produced by the power circuit.

Claim 7 (Canceled).

Claim 8 (Previously presented): The semiconductor power module of claim 1, wherein the heat sink is adhered to at least one of the lead frame and the sealer with an adhesive.

Claim 9 (Original): The semiconductor power module of claim 8, wherein the adhesive contains a filler that includes at least one compound selected from the group consisting of Al₂O₃, AlN and BeO.

Claim 10 (Previously presented): The semiconductor power module of claim 1, wherein the heat sink and the sealer each have grooves or rings and wherein the heat sink and the sealer are connected to each other by means of the grooves or the rings.

Claim 11 (Previously presented): The semiconductor power module of claim 1, wherein the heat sink is sheet-shaped.

Claims 12-18 (Canceled).

Claim 19 (Previously presented): A semiconductor power module, comprising:
a lead frame having a first portion at a first level, a second portion connected to the first portion at a second level, and a plurality of terminals connected to the second portion;
a power circuit mounted on a first surface of the first portion;
a heat sink consisting of Al₂O₃ and having an electrically insulating property and thermal conductivity, wherein the heat sink directly contacts a second surface opposite the first surface of the first portion of the lead frame and wherein a surface of the heat sink is exposed to the outside of the semiconductor power module; and
a sealer having an electrically insulating property and thermal conductivity, wherein the sealer covers the power circuit.

Claim 20 (Previously Presented): A semiconductor power module, comprising:
a lead frame having a first portion at a first level, a second portion connected to the first portion at a second level, and a plurality of terminals connected to the second portion;

a power circuit mounted on a first surface of the first portion;
a heat sink comprising at least one compound comprising BeO and having an electrically insulating property and thermal conductivity, wherein the heat sink directly contacts a second surface opposite the first surface of the first portion of the lead frame and wherein a surface of the heat sink is exposed to the outside of the semiconductor power module; and

a sealer having an electrically insulating property and thermal conductivity, wherein the sealer covers the power circuit.

Claim 21 (New): A semiconductor power module, comprising:

a lead frame having a first portion at a first level, a second portion connected to the first portion at a second level, and a plurality of terminals connected to the second portion;

a power circuit mounted on a first surface of the first portion;

a thermally conductive electrical insulator directly contacting a second surface opposite the first surface of the first portion of the lead frame and wherein a surface of the electrical insulator is exposed to the outside of the semiconductor power module; and

an electrically insulating and thermally conductive sealer covering the power circuit.

Claim 22 (New): The semiconductor power module of claim 1, wherein the heat sink comprises at least one compound selected from the group consisting of AlN and BeO.